(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 18 December 2003 (18.12.2003)

PCT

(10) International Publication Number WO 03/104332 A1

(51) International Patent Classification7: 33/04

C09B 35/02,

(21) International Application Number: PCT/GB03/02438

(22) International Filing Date:

5 June 2003 (05.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0213011.0

7 June 2002 (07.06.2002) US

- (71) Applicant (for all designated States except US): AVECIA LIMITED [GB/GB]; Hexagon House, Blackley, Manchester M9 8ZS (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DICKINSON, Alan [GB/GB]; Earls Road, Grangemouth, Stirlingshire FK3 8XG (GB). THOMPSON, Neil, James [GB/GB]; Hexagon House, P.O. Box 42, Blackley, Manchester M9 8ZS (GB). WIGHT, Paul [GB/GB]; P.O. Box 42, Hexagon House, Blackley, Manchester M9 8ZS (GB). GREGORY, Peter [GB/GB]; 129 Armadale Road, Bolton BL3 4UN (GB). DOUBLE, Philip, John [GB/GB]; Hexagon House, P.O. Box 42, Blackley, Manchester M9 8ZS (GB). BRADBURY, Roy [GB/GB]; P.O. Box 42, Hexagon House, Blackley, Manchester M9 8ZS (GB).

- (74) Agents: MAYALL, John et al.; Avecia Limited, Intellectual Property Group, P.O. Box 42, Hexagon House, Blackley, Manchester M9 8ZS (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITIONS AND INKS CONTAINING DISAZO DYES

$$H_{3}C-N$$

$$N=N$$

$$H_{3}S$$

$$H_$$

(57) Abstract: A process for printing an image on a substrate comprising applying thereto a composition comprising a liquid medium and a compound of Formula (1) A-N=N-L-N=N-A wherein: each A independently is optionally substituted aryl or heteroaryl; and L is an optionally substituted, optionally metallised 1,8-dihydroxynaphthylene group; provided that: (i) at most one of the groups represented by A has a hydroxy substituent ortho to the -N=N- groups shown in Formula (1); and (ii) Formula (1) is not: Also claimed are compositions for printing, compounds and processes for making the compounds.